

DATE: 04/03/2000  
TIME: 15:55:14

This Raw Listing contains the General Information Section and up to first 5 pages.

ENTERED

```

1 <110> APPLICANT: Greene, John M.
2 Fleischmann, Robert D.
3 Ni, Jian
4 <120> TITLE OF INVENTION: Human Tumor Necrosis Factor Receptor-Like Genes
5 <130> FILE REFERENCE: 1488.0710005
6 <140> CURRENT APPLICATION NUMBER: US/09/526,437
7 <141> CURRENT FILING DATE: 2000-03-15
8 <160> NUMBER OF SEQ ID NOS: 11
9 <170> SOFTWARE: PatentIn Ver. 2.0
10 <210> SEQ ID NO 1
11 <211> LENGTH: 1527
12 <212> TYPE: DNA
13 <213> ORGANISM: Homo sapiens
14 <220> FEATURE:
15 <221> NAME/KEY: sig_peptide
16 <222> LOCATION: (46)..(106)
17 <220> FEATURE:
18 <221> NAME/KEY: mat_peptide
19 <222> LOCATION: (109)..(1248)
20 <220> FEATURE:
21 <221> NAME/KEY: CDS
22 <222> LOCATION: (46)..(1248)
23 <400> SEQUENCE: 1
24 cgcccagccg cgcctccaa gccctgagg tttccgggga ccaca atg aac aag ttg 57
25 Met Asn Lys Leu
26 -20
27 ctg tgc tgc gcg ctc gtg ttt ctg gac atc tcc att aag tgg acc acc 105
28 Leu Cys Cys Ala Leu Val Phe Leu Asp Ile Ser Ile Lys Trp Thr Thr
29 -15 -10 -5
30 cag gaa acg ttt cct cca aag tac ctt cat tat gac gaa gaa acc tct 153
31 Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp Glu Glu Thr Ser
32 -1 1 5 10 15
33 cat cag ctg ttg tgt gac aaa tgt cct cct ggt acc tac cta aaa caa 201
34 His Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr Tyr Leu Lys Gln
35 20 25 30
36 cac tgt aca gca aag tgg aag acc gtg tgc gcc cct tgc cct gac cac 249
37 His Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro Cys Pro Asp His
38 35 40 45
39 tac tac aca gac agc tgg cac acc agt gac gag tgt cta tac tgc agc 297
40 Tyr Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys Leu Tyr Cys Ser
41 50 55 60
42 ccc gtg tgc aag gag ctg cag tac gtc aag cag gag tgc aat cgc acc 345
43 Pro Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu Cys Asn Arg Thr
44 65 70 75

```

PAGE: 2

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/526,437

DATE: 04/03/2000

TIME: 15:55:14

Input Set: I526437.RAW

45	cac aac cgc gtg tgc gaa tgc aag gaa ggg cgc tac ctt gag ata gag	393
46	His Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr Leu Glu Ile Glu	
47	80 85 90 95	
48	ttc tgc ttg aaa cat agg agc tgc cct cct gga ttt gga gtg gtg caa	441
49	Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe Gly Val Val Gln	
50	100 105 110	
51	gct gga acc cca gag cga aat aca gtt tgc aaa aga tgt cca gat ggg	489
52	Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg Cys Pro Asp Gly	
53	115 120 125	
54	ttc ttc tca aat gag acg tca tct aaa gca ccc tgt aga aaa cac aca	537
55	Phe Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys Arg Lys His Thr	
56	130 135 140	
57	aat tgc agt gtc ttt ggt ctc ctg cta act cag aaa gga aat gca aca	585
58	Asn Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys Gly Asn Ala Thr	
59	145 150 155	
60	cac gac aac ata tgt tcc gga aac agt gaa tca act caa aaa tgt gga	633
61	His Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr Gln Lys Cys Gly	
62	160 165 170 175	
63	ata gat gtt acc ctg tgt gag gag gca ttc ttc agg ttt gct gtt cct	681
64	Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg Phe Ala Val Pro	
65	180 185 190	
66	aca aag ttt acg cct aac tgg ctt agt gtc ttg gta gac aat ttg cct	729
67	Thr Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val Asp Asn Leu Pro	
68	195 200 205	
69	ggc acc aaa gta aac gca gag agt gta gag agg ata aaa cgg caa cac	777
70	Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile Lys Arg Gln His	
71	210 215 220	
72	agc tca caa gaa cag act ttc cag ctg ctg aag tta tgg aaa cat caa	825
73	Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu Trp Lys His Gln	
74	225 230 235	
75	aac aaa gac caa gat ata gtc aag aag atc atc caa gat att gac ctc	873
76	Asn Lys Asp Gln Asp Ile Val Lys Lys Ile Ile Gln Asp Ile Asp Leu	
77	240 245 250 255	
78	tgt gaa aac agc gtg cag cgg cac att gga cat gct aac ctc acc ttc	921
79	Cys Glu Asn Ser Val Gln Arg His Ile Gly His Ala Asn Leu Thr Phe	
80	260 265 270	
81	gag cag ctt cgt agc ttg atg gaa agc tta ccg gga aag aaa gtg gga	969
82	Glu Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly Lys Lys Val Gly	
83	275 280 285	
84	gca gaa gac att gaa aaa aca ata aag gca tgc aaa ccc agt gac cag	1017
85	Ala Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys Pro Ser Asp Gln	
86	290 295 300	
87	atc ctg aag ctg ctc agt ttg tgg cga ata aaa aat ggc gac caa gac	1065
88	Ile Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn Gly Asp Gln Asp	
89	305 310 315	
90	acc ttg aag ggc cta atg cac gca cta aag cac tca aag acg tac cac	1113
91	Thr Leu Lys Gly Leu Met His Ala Leu Lys His Ser Lys Thr Tyr His	
92	320 325 330 335	
93	ttt ccc aaa act gtc act cag agt cta aag aag acc atc agg ttc ctt	1161
94	Phe Pro Lys Thr Val Thr Gln Ser Leu Lys Lys Thr Ile Arg Phe Leu	

PAGE: 3

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/526,437

DATE: 04/03/2000  
TIME: 15:55:14

Input Set: I526437.RAW

```

95          340          345          350
96  cac agc ttc aca atg tac aaa ttg tat cag aag tta ttt tta gaa atg 1209
97  His Ser Phe Thr Met Tyr Lys Leu Tyr Gln Lys Leu Phe Leu Glu Met
98          355          360          365
99  ata ggt aac cag gtc caa tca gta aaa ata agc tgc tta taactggaaa 1258
100 Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys Leu
101          370          375          380
102  tggccattga gctgtttcct cacaattggc gagatcccat ggatgagtaa actgtttctc 1318
103  aggcacttga ggctttcagt gatatctttc tcattaccag tgactaattt tgccacaggg 1378
104  tactaaaaga aactatgatg tggagaaaagg actaacatct cctccaataa accccaaatg 1438
105  gttaatccaa ctgtcagatc tggatcgtaa tctactgact atattttccc ttattactgc 1498
106  ttgcagtaat tcaactggaa aaaaaaaaaa 1527
107 <210> SEQ ID NO 2
108 <211> LENGTH: 401
109 <212> TYPE: PRT
110 <213> ORGANISM: Homo sapiens
111 <400> SEQUENCE: 2
112  Met Asn Lys Leu Leu Cys Cys Ala Leu Val Phe Leu Asp Ile Ser Ile
113      -20          -15          -10
114  Lys Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
115      -5          -1 1          5          10
116  Glu Glu Thr Ser His Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr
117          15          20          25
118  Tyr Leu Lys Gln His Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro
119          30          35          40
120  Cys Pro Asp His Tyr Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
121          45          50          55
122  Leu Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu
123          60          65          70          75
124  Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr
125          80          85          90
126  Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe
127          95          100          105
128  Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
129          110          115          120
130  Cys Pro Asp Gly Phe Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys
131          125          130          135
132  Arg Lys His Thr Asn Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys
133          140          145          150          155
134  Gly Asn Ala Thr His Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr
135          160          165          170
136  Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
137          175          180          185
138  Phe Ala Val Pro Thr Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val
139          190          195          200
140  Asp Asn Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
141          205          210          215
142  Lys Arg Gln His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
143          220          225          230          235
144  Trp Lys His Gln Asn Lys Asp Gln Asp Ile Val Lys Lys Ile Ile Gln

```

PAGE: 4

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/526,437

DATE: 04/03/2000  
TIME: 15:55:14

Input Set: I526437.RAW

```

145          240          245          250
146    Asp Ile Asp Leu Cys Glu Asn Ser Val Gln Arg His Ile Gly His Ala
147          255          260          265
148    Asn Leu Thr Phe Glu Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly
149          270          275          280
150    Lys Lys Val Gly Ala Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys
151          285          290          295
152    Pro Ser Asp Gln Ile Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
153    300          305          310          315
154    Gly Asp Gln Asp Thr Leu Lys Gly Leu Met His Ala Leu Lys His Ser
155          320          325          330
156    Lys Thr Tyr His Phe Pro Lys Thr Val Thr Gln Ser Leu Lys Lys Thr
157          335          340          345
158    Ile Arg Phe Leu His Ser Phe Thr Met Tyr Lys Leu Tyr Gln Lys Leu
159          350          355          360
160    Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys
161          365          370          375
162    Leu
163    380
164    <210> SEQ ID NO 3
165    <211> LENGTH: 1188
166    <212> TYPE: DNA
167    <213> ORGANISM: Homo sapiens
168    <220> FEATURE:
169    <221> NAME/KEY: sig_peptide
170    <222> LOCATION: (1)..(61)
171    <220> FEATURE:
172    <221> NAME/KEY: mat_peptide
173    <222> LOCATION: (64)..(1185)
174    <220> FEATURE:
175    <221> NAME/KEY: CDS
176    <222> LOCATION: (1)..(1185)
177    <400> SEQUENCE: 3
178    atg aac aag ttg ctg tgc tgc gcg ctc gtg ttt ctg gac atc tcc att      48
179    Met Asn Lys Leu Leu Cys Cys Ala Leu Val Phe Leu Asp Ile Ser Ile
180    -20          -15          -10
181    aag tgg acc acc cag gaa acg ttt cct cca aag tac ctt cat tat gac      96
182    Lys Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
183    -5          -1  1          5          10
184    gaa gaa acc tct cat cag ctg ttg tgt gac aaa tgt cct cct ggt acc      144
185    Glu Glu Thr Ser His Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr
186    15          20          25
187    tac cta aaa caa cac tgt aca gca aag tgg aag acc gtg tgc gcc cct      192
188    Tyr Leu Lys Gln His Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro
189    30          35          40
190    tgc cct gac cac tac tac aca gac agc tgg cac acc agt gac gag tgt      240
191    Cys Pro Asp His Tyr Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
192    45          50          55
193    cta tac tgc agc ccc gtg tgc aag gag ctg cag tac gtc aag cag gag      288
194    Leu Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu

```

PAGE: 5

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/526,437

DATE: 04/03/2000  
TIME: 15:55:14

Input Set: I526437.RAW

195	60	65	70	75	
196	tgc aat cgc acc cac aac cgc gtg tgc gaa tgc aag gaa ggg cgc tac	336			
197	Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr				
198	80	85	90		
199	ctt gag ata gag ttc tgc ttg aaa cat agg agc tgc cct cct gga ttt	384			
200	Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe				
201	95	100	105		
202	gga gtg gtg caa gct gga acc cca gag cga aat aca gtt tgc aaa aga	432			
203	Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg				
204	110	115	120		
205	tgt cca gat ggg ttc ttc tca aat gag acg tca tct aaa gca ccc tgt	480			
206	Cys Pro Asp Gly Phe Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys				
207	125	130	135		
208	aga aaa cac aca aat tgc agt gtc ttt ggt ctc ctg cta act cag aaa	528			
209	Arg Lys His Thr Asn Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys				
210	140	145	150	155	
211	gga aat gca aca cac gac aac ata tgt tcc gga aac agt gaa tca act	576			
212	Gly Asn Ala Thr His Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr				
213	160	165	170		
214	caa aaa tgt gga ata gat gtt acc ctg tgt gag gag gca ttc ttc agg	624			
215	Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg				
216	175	180	185		
217	ttt gct gtt cct aca aag ttt acg cct aac tgg ctt agt gtc ttg gta	672			
218	Phe Ala Val Pro Thr Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val				
219	190	195	200		
220	gac aat ttg cct ggc acc aaa gta aac gca gag agt gta gag agg ata	720			
221	Asp Asn Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile				
222	205	210	215		
223	aaa cgg caa cac agc tca caa gaa cag act ttc cag ctg ctg aag tta	768			
224	Lys Arg Gln His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu				
225	220	225	230	235	
226	tgg aaa cat caa aac aaa gac caa gat ata gtc aag aag atc atc caa	816			
227	Trp Lys His Gln Asn Lys Asp Gln Asp Ile Val Lys Lys Ile Ile Gln				
228	240	245	250		
229	gat att gac ctc tgt gaa aac agc gtg cag cgg cac att gga cat gct	864			
230	Asp Ile Asp Leu Cys Glu Asn Ser Val Gln Arg His Ile Gly His Ala				
231	255	260	265		
232	aac ctc acc ttc gag cag ctt cgt agc ttg atg gaa agc tta ccg gga	912			
233	Asn Leu Thr Phe Glu Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly				
234	270	275	280		
235	aag aaa gtg gga gca gaa gac att gaa aaa aca ata aag gca tgc aaa	960			
236	Lys Lys Val Gly Ala Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys				
237	285	290	295		
238	ccc agt gac cag atc ctg aag ctg ctc agt ttg tgg cga ata aaa aat	1008			
239	Pro Ser Asp Gln Ile Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn				
240	300	305	310	315	
241	ggc gac caa gac acc ttg aag ggc cta atg cac gca cta aag cac tca	1056			
242	Gly Asp Gln Asp Thr Leu Lys Gly Leu Met His Ala Leu Lys His Ser				
243	320	325	330		
244	aag acg tac cac ttt ccc aaa act gtc act cag agt cta aag aag acc	1104			

PAGE: 6

VERIFICATION SUMMARY  
PATENT APPLICATION US/09/526,437

DATE: 04/03/2000  
TIME: 15:55:14

Input Set: I526437.RAW

Line ? Error/Warning

Original Text

-----